

OVERMOLDED ELASTOMERIC DIAPHRAGM PUMP FOR
PRESSURIZATION IN INKJET PRINTING SYSTEMS

ABSTRACT OF THE DISCLOSURE

An overmolded diaphragm pump for applying pumping
force to a fluid such as liquid ink for ink-jet printing.
5 The pump structure includes a rigid substrate having at
least one chamber opening, and an elastomeric diaphragm and
sealing structure fabricated of an elastomeric material.
This diaphragm and sealing structure is overmolded over a
portion of the rigid substrate and includes at least one
10 diaphragm portion extending over a corresponding chamber
opening. A gland seal portion makes a seal between the
elastomeric diaphragm and sealing structure and a mating
part.